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METHODS OF STATISTICS
OF
UNEMPLOYMENT

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CONTENTS

INTRODUCTION

The first collective efforts towards developing the international comparability of unemployment statistics were made in 1911, when the International unemployment Association and the International Statistical Institute set up a mixed committee for this purpose. The report and the conclusions of this Committee were adopted at the General Meeting of the two organisations in 1913 [1].

These efforts, though interrupted by the War, were resumed at the first Session of the International Labour Conference, which "invited the Governing Body of the International Labour Office to form an international commission empowered to formulate recommendations upon the best methods to be adopted in each State for collecting and publishing all information relative to the problem of unemployment, in such form and for such periods as may be internationally comparable".

In accordance with this decision, the Governing Body appointed a special committee of three of its members who, after hearing the opinion of various experts, circulated a questionnaire to governments, the answers to which are dealt with in a study published by the Office entitled *Methods of Compiling Statistics of Unemployment* [2].

The present report is intended to continue the work; and the whole problem will be shortly examined by the Second International Conference of Labour Statisticians, to be held in 1925 in accordance with a decision of the Governing Body, approved by the Sixth Session of the General Conference in 1924.

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[1] See *Quarterly Bulletin of the International Association for Combating Unemployment*, April-June 1923, which deals mainly with unemployment statistics; and April-June 1914, containing the account of the discussions.

[2] *Studies and Reports*, Series C (Employment and Unemployment) No. 7, Geneva, 1922.

This resolution is as follows :

The Conference

(1) Expresses its approval of the decision taken by the Governing Body to convene in the near future an International Conference of Labour Statisticians, which will include in its Agenda the examination of unemployment statistics with a view to improving them from the point of view both of their international value and of their international comparability;

(2) Expresses its recognition of the efforts hitherto made by the International Labour Office in its work of international information and co-ordination in connection with the question of unemployment and decides that they shall be continued, and if possible, extended.

In view of the above resolutions (Washington, 1919, and Geneva, 1924) the present report is intended to supply the International Conference of Labour Statisticians with a basis of examination for determining the best methods : (1) of improving unemployment statistics from a national point of view ; (2) of rendering them more comparable internationally.

* * *

Previous to the War, statesmen and statisticians, whose attention had been devoted to the problem of unemployment, generally aimed at compiling "direct" statistics dealing with this phenomenon [1]. In other words, statistics were generally based on special enquiries, such as a general census of the population, general occupational censuses, or local censuses in certain industrial centres ; and were only secondarily of an "indirect" character, such as those, in other words, derived from the working of certain permanent institutions for dealing with unemployment, particularly unemployment insurance.

This tendency was not surprising when the relatively slight development of pre-war unemployment insurance is remembered. It is true that unemployment funds had been set up by certain trade unions, which gave considerable value to their statistics supplied, but the number of such institutions was far below its present figure, and compulsory unemployment insurance, organised by the State, only existed in Great Britain, where it had just been instituted by the Unemployment Insurance Act of 1911, which came into force in 1912 and only applied to certain industries.

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[1] Cf. Conclusions of the International Statistical Institute, etc. mentioned above.

The situation has altered completely to-day. Unemployment insurance in *Great Britain* applies to all industries and occupations, except agriculture, domestic service, and a few special occupations where employment is particularly stable and where unemployment risks are practically non-existent. The system as a whole applies to more than 11,500,000 workers. Compulsory unemployment insurance has also been established in *Austria,* in *Ireland,* in *Italy,* in *Poland,* in *Queensland,* and in *Russia.* And though regular statistics, analogous to those compiled in Great Britain are not yet available in these countries, except in Austria, the adoption of a compulsory system of unemployment insurance renders their compilation possible in the future. In other countries, such as Germany, where compulsory schemes of unemployment insurance are at present under consideration, it may also be hoped that statistics will soon be available. Several countries, moreover, in default of permanent insurance services, have already established a system of relief and are in a position to furnish certain data relating to unemployment, particularly, Czechoslovakia, France, Germany, Sweden, and Switzerland.

Apart from Government systems, more than 650,000 persons are insured under optional systems in Belgium, some 260,000 in Denmark, 32,000 in Norway, and 280,000 in the Netherlands; and in practice optional insurance of this description is practically analogous to trade union insurance, and is administered in most countries with the aid of government subsidies and under government control; and insurance funds are compelled to supply regular statistical data, which are summarised and published periodically.

In other countries, such as Switzerland and Czechoslovakia, a similar system has been established and will probably entail the same consequence from a statistical point of view. Finally in Germany and in Sweden, where trade union unemployment insurance is not in receipt of financial assistance from the State, regular statistical data concerning the number and percentage of unemployed members of trade union funds are available, figures which apply to more than 200,000 workers in Sweden and nearly 3,500,000 in Germany. It should also be remembered that trade union unemployment statistics have been published in Great Britain since 1871, and are still issued alongside of official unemployment insurance statistics.

These data, which are more numerous and more trustworthy than before the War, are issued with sufficient frequency to

enable continuous records, to be published. Hence direct statistical date derived from censuses, which are only available in practice at long intervals, have become of minor importance for unemployment purposes.

Other forms of direct and continuous statistical data are, however, supplied by trade unions in certain countries, where the unions, although without unemployment funds, make monthly estimates of the number of members unemployed. Figures of this kind are available in Australia and in Canada.

In the absence of direct or indirect statistical data connected with unemployment, those furnished by statistics of employment and employment exchanges may also be utilised, as they supply evidence concerning unemployment.

Periodical statistics of employment are at present available in *Germany*, in *Canada*, in the *United States* and in *Poland* for all industries or for for an important majority of them, and for certain special industries or callings in some other countries. Public employment exchanges have developed considerably since the War, have been established in some countries where they were hitherto non-existent, and have considerably extended their sphere of activity in others in which they already existed : the statistics supplied by them have increased correspondingly in value.

To sum up, the unemployment or labour market statistics at present available include :

(1) Compulsory insurance statistics ;

(2) Statistics of relief to the unemployed ;

(3) Voluntary insurance statistics ;

(4) Trade union estimates ;

(5) Employment exchange statistics ;

(6) Statistics of employment,

to which the data derived from censuses and special enquiries, may be added.

The value and scope of the statistical data available for each of these categories will be examined country by country. It must be remembered, however, that the principal desiderata for statistics are :

(1) That they should provide evidence as to the extent of unemployment;

(2) should furnish a basis of enquiry for determining the causes of unemployment;

(3) and should throw light on the efficiency of measures for its prevention and relief.

As the extent of unemployment varies considerably, not only from year to year, but even from month to month, the phenomena must be observed, if not absolutely continuously, at least as frequently as possible, to enable the fluctuations to be followed and a continuous record of unemployment to be constructed monthly statistics are, as a rule, sufficient for this purpose.

Unemployment varies considerably in extent from one industry or occupation to another; and figures should therefore deal not only with the population as a whole, but should be specialised by industry or calling.

It is also essential to be able to know at any given date not only the absolute extent of unemployment, but also its relative importance, both for the entire industrial population and for each special group of workers considered separately : in other words, a thorough knowledge of the extent of unemployment can only be obtained with the assistance of frequent statistical data, issued at least monthly, and grouped by industry or occupation (and if possible according to sex and age) giving both the absolute number of unemployed and the corresponding percentage for each separate group. If statistics are also intended to furnish — either as a basis of reasoning or as a means of controlling conclusions — a method for investigating the causes of unemployment, they must comply with similar requirements, except that data relating to the absolute number of unemployed are in this case of less importance. But a series of figures relating to short periods is essential to enable comparisons to be made with similar series dealing with other social phenomena, and to ascertain the presence or absence of correlations on which to base deductions concerning cause and effect between unemployment and these phenomena [1].

[1] In 1924 the International Labour Office undertook an enquiry of this nature, based on statistical data and deductions from the Statistics, in a study on fluctuations in unemployment in various countries during 1920-1923 in connection with price movements and foreign trade. *Studies and Reports*, Series C (Employment and Unemployment) No. 8.

Similarly, an examination of the fluctuations of unemployment, based on monthly statistics, enables deductions regarding the seasonal or cyclical character of certain fluctuations in unemployment to be checked by positive data. A glance at the fluctuations in unemployment in certain countries, for instance, shows that the special conditions prevailing in winter exercise very little influence on the labour market as a whole in Great Britain, whereas it is considerable in the Netherlands and in Scandinavian countries.

Similarly, a study of the special causes of unemployment in certain industries or occupations would be considerably facilitated by the existence of statistics compiled according to industry or occupation ; it is obvious, finally, that percentages are absolutely essential for comparative analysis, as it is only by this means that a common measure of the different phenomena under consideration can be obtained.

The third aspect of the question, namely, the light which might be thrown by statistics on the efficiency of measures for dealing with unemployment, is at least as important as the two preceding ones for the International Labour Organisation. When States have undertaken or propose to undertake, by adopting conventions, to set up free public employment exchanges, they should be able to ascertain the degree of activity of such services through the publications of the Office. Similarly, when the International Labour Conference recommends States-Members to establish an " effective " system of unemployment insurance, it is of great value to be able to ascertain from regular statistical data, how far the various national systems are working satisfactorily. It is sufficient to note here that the same general data are again requisite. In other words, statistics should be issued frequently, should be grouped according to industry or occupation, and should furnish both absolute numbers and percentages.

The information supplied by each class of statistics will now be examined in the light of these remarks. First in respect of figures dealing with total unemployment, a separate paragraph being subsequently devoted to partial unemployment. Finally the requirements formulated by the International Labour Conference for the purpose of improving national statistics and developing their international comparability will be dealt with in the conclusion.

I

TOTAL UNEMPLOYMENT

Compulsory Insurance Statistics

Two different statements, forming a vicious circle, have long prevailed in this domain : the dilemna being as follows. Either (1) the best continuous source of statistical information will be provided by a system of compulsory insurance ; or (2) a system of compulsory unemployment insurance can only be established when reliable statistical data for calculating the risks involved are available.

Great Britain boldly escaped from this dilemna in 1911 ; and the statistics of voluntary insurance covering a number of years supplied by trade unions were deemed to offer sufficiently reliable statistical basis for making the actuarial calculations required for establishing a solvent system of compulsory insurance. An Unemployment Insurance Act was therefore passed, and experience has shown that the system then instituted, which was at first limited to certain industries, was a sound one ; and in 1920 it became possible to extend it to practically all industries. This system successfully survived the terrible unemployment crisis which arose shortly afterwards, with the help of comparatively modest financial assistance from the Treasury, and it is confidently hoped that the loans incurred will be repaid without undue difficulty.

The national system of compulsory unemployment insurance existing in Great Britain is now the main source of statistical data concerning unemployment in that country [1]. The total number of persons insured, of insured unemployment, and the percentage of the latter to the former can be calculated approximately every month, not only as regards the total number of workers, but also with reference to separate industrial groups, of which

[1] John Hilton : "Statistics of Employment derived from the Working of the Unemployment Insurance Acts". *Journal of the Royal Statistical Society.* March 1923, pp. 154-205.

there are nearly 100, and distinguishing in each case between males and females.

The data are, it is true, only approximately accurate : (1) because, though the total number of insured workpeople and their distribution among the various industrial groups can be calculated with accuracy once a year, when insurance books are exchanged, changes between these dates occur which can be only approximately estimated in the quarterly returns, because some of them escape the authorities ; and (2) owing to the manner of enumerating the number of insured who are unemployed. All unemployed persons must lodge their insurance books at a public employment exchange in order to obtain benefit. It follows from this that the exact number of persons unemployed at any given moment can be calculated by counting the " insurance books lodged " at that date. In fact, however, the reality is somewhat different, for various reasons [1], the main one being that unemployed persons frequently omit to lodge their insurance books, particularly when they know that they have exhausted their right to benefit, while others neglect to claim them, even after ceasing to be unemployed, when they have, for instance, obtained employment in an industry not covered by insurance, e.g., agriculture or domestic service, have emigrated, or are ill.

Despite these defects, which can, to a certain extent, be remedied, the actual working of the British system of compulsory insurance gives each month the numbers and percentages of insured unemployed in a large number of industries or groups of industries, and for all industries covered, with sufficient accuracy.

After seeing the information actually supplied by a system of compulsory insurance, what is that which it fails to give ? First, no information concerning unemployment is available in industries or occupations not subject to insurance, particularly agricultural workers, domestic servants, home workers, and intellectual workers ; while another important class of unemployed persons, respecting whom no information is given, consists of young persons between the date of leaving school and that of obtaining their first insurable employment. These various defects explain why the absolute number of unemployment persons, the existence of whom is revealed directly by insurance, is appreciably lower than the actual total number of unemployed persons in the country.

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[1] J. HILTON, *op. cit.*, p. 167.

Is this equally the case with regard to the percentages, or in other words, cannot the average percentage of unemployed among the insured be regarded as representing the proportion of unemployed persons throughout the entire wage-earning class, whether insured or not ? In attempting to answer this, the question arises whether the proportion of unemployed persons in certain categories excluded (e.g. agricultural workers, domestic servants, government officials, school teachers, intellectual workers, railway workers, etc.) is not markedly below the average, and, on the other hand, whether certain other categories (e.g. young persons from 14 to 18) do not suffer considerably more from unemployment than the average. If this be the case, it will be seen that the number of "unemployment books lodged", as a percentage of the total number of books current represents in fact fairly approximately the percentage of unemployed among the total number of ordinary wage earners.

If this be the case, it is possible to obtain an approximate idea of the absolute number of unemployed persons in the country as a whole from the percentages furnished by unemployment insurance. On 26 January 1925, for example, the percentage of insured unemployed was 11.5: as it is estimated [1] that there are 16,000,000 wage and salary earners in Great Britain, the absolute number of unemployed would have amounted to 1,840,000 on the date in question, whereas the absolute number of insured unemployed, estimated on the basis of "insurance books lodged" was is fact only 1,319,628. Deductions of this kind are naturally subject to conjecture, for though the results may be exact at one date, they are not necessarily so at another, when the conditions under which the scheme of insurance is applied may have undergone changes affecting the statistics. If this deduction is justified under present conditions, this scarcely applies to the periods 1912-1914 and 1914-1916, when the total number of insured persons was constituted entirely differently than at present ; and it must be estimated that the percentage of the total number of insured unemployed during the period 1912-1914 was appreciably greater than the corresponding percentage of unemployed in the total working population : for it is well known that the industries to which the original system of compulsory unemployment insurance was applied as an experiment were

[1] John HILTON, *op. cit.*, p. 204, with a reservation concerning the positive data which will shortly be furnished by the 1921 census.

peculiarly liable to unemployment. It should also be noted in this connection that the curve of unemployment, based on the working of the insurance system, was considerably higher than that based on trade union statistics.

Apart from the great changes which have occurred in the field of application of insurance, the conditions imposed by law, or by Administrative Regulations issued under the Act, have altered sufficiently since 1920 to prevent the figures covering the latter period from being absolutely homogeneous. A communication from the Ministry of Labour [1], draws attention to the fact that administrative or legislative measures for extending the right to benefit result in the figures supplied by insurance minimising the real decrease of unemployment which occurred during the first six months of the year and unduly emphasising its increase during the latter half of the year.

Unemployment insurance statistics are bound to show similar defects for a considerable time : and as long as unemployment insurance retains its present experimental character, somewhat frequent changes in its working may be expected, which must necessarily affect the comparability of statistical data at different periods. The only remedy for this would appear to consist in providing the persons using these data with all the relevant information available, by adding explanatory notes to statistical tables indicating the dates when changes in the working of insurance were introduced, and their probable approximate effect on statistics.

One other defect presented by statistics based on the working of the British system of unemployment insurance is that although the approximate number of unemployed in industries subject to insurance is revealed by the number of "unemployment books lodged", the numbers actually in receipt of benefit are not stated, although this information would be of great value in forming an opinion of the benefits of the system.

In spite of these defects, compulsory unemployment insurance, as practised in Great Britain, undoubtedly provides the best regular source of statistical information in connection with unemployment ; and it is a matter of regret from the statistical point of view that the data furnished by other existing systems of compulsory unemployment insurance are at present comparatively so meagre.

[1] *Ministry of Labour Gazette*, January 1925.

Unemployment insurance was established in *Austria* in 1920, but neither the total number of insured nor the percentage of unemployed are stated ; and only the absolute aggregate number of insured persons in receipt of unemployment benefit on the last day of the month is available.

No *Irish Free State* statistics of unemployment insurance are issued, although the system has continued to work on much the same lines as in Great Britain.

In *Italy,* where compulsory insurance was established in 1919, only the absolute number of unemployed at the end of each month is stated, as in Austria ; this figure, however, is distributed among 11 large industrial groups, with a distinction between males and females. These data appear to be based on calculations made by the local bodies responsible for the administration of unemployment insurance. In addition to the number of totally unemployed persons, that of partially unemployed is also stated ; and, from another point of view, the number of unemployed persons in receipt of insurance benefit.

The *Polish* Compulsory Insurance Act only dates from 18 July 1924 : it is therefore as yet too early to consider its results from a statistical point of view. At present only the aggregate number of unemployed persons is given.

In *Queensland,* the Act dates from 18 October 1922, but its working has not as yet led to the publication of any regular statistical information.

In *Russia,* the available information applies to the absolute number of unemployed in receipt of benefit, and the percentage of these of the total number of registered unemployed.

It would seem impossible to believe, however, that unemployment statistics are not destined to undergo considerable improvement in the above countries in the near future, an improvement enabling them to be compared with the data already available in Great Britain. May it not be hoped that the enormous social importance of statistics of this character in connection with unemployment will be realised ? When countries have established the best means of compiling statistics of this kind, namely a system of compulsory insurance, it may be hoped that the necessary measures for enabling the system to furnish the best statistical data possible will soon be adopted.

Statistics of State Relief for the Unemployed

In the absence of satisfactory systems of unemployment insurance, various countries have organised, during the war or shortly after the armistice, special services for the relief of the unemployed, and from their records certain statistics have been compiled. These, in common with most statistics of compulsory insurance considered above, suffer from the defect that they cover a period of only a very few years. But while the latter will continue to be compiled in the future, the former no longer exist for some countries and will probably soon cease in others owing to the essentially provisional character of the institutions from which they are obtained. They are still available for Germany, France, and Czechoslovakia ; in Sweden, however, they cover only the period from the beginning of 1921 to the end of 1923, and in Switzerland that from April 1920 to May 1924.

To a much greater extent than the statistics of compulsory insurance, those obtained from relief institutions are lacking in comparability at different dates owing to changes in the conditions under which relief has been granted, changes which have been much more frequent than in the case of insurance schemes. Further the field of application is generally much less clearly defined than that of insurance, and in consequence, although the statistics may show for any given date the actual number of unemployed who have been in receipt of relief, they do not show, nor can they reasonably be expected to show, the percentage which that number represents of the total working population covered.

The Swiss statistics had the special advantage of being related to the labour exchange statistics and they thus showed in close connection the number of unemployed relieved and also the number of those who, in the hope of receiving assistance, had registered their names at the labour exchanges. In addition they gave, as did the Swedish statistics, the number of unemployed engaged on relief works, figures which served as basis for estimating the relative importance of these different means of assistance. A further characteristic of the statistics based on the records is that in general those receiving assistance are not classified according to industry or occupation. In the Swiss statistics, however, they were classified in this way.

It may be concluded that despite their imperfections and limitations, these statistics, in the absence of other sources of infor-

mation, have been of some value in indicating the general movement of unemployment in a number of countries during recent years. They serve also as a means of measuring the effort made by the public authorities to relieve the unemployed where no regular system of insurance was established.

Statistics of Voluntary Insurance

The statistics of voluntary insurance, generally those supplied by the trade union employment funds, have the distinct advantage over the statistics of compulsory insurance of covering a considerably longer period and therefore of enabling researches into different aspects of the unemployment problem to be more extended. Nevertheless, they are in various ways less satisfactory than the statistics of compulsory insurance. Their scope, for instance, is generally narrower and less clearly defined. In the case of compulsory insurance the compulsory character of the system itself implies that, subject to the reservations already made, the records will supply valuable information as to the actual number unemployed among the categories of workers covered. On the other hand the figures obtained from voluntary insurance records serve only as a basis for estimating the total numbers unemployed. Such estimates of the approximate numbers of workers unemployed in different industries and occupations as a whole can be made only if the relation between the number of workers covered by voluntary insurance and the total number of workers generally employed in corresponding industries and occupations is known, and if it may be assumed that the proportion of unemployed among the insured workers is the same as that among those not insured. In other words, instead of the actual figures which may be obtained from compulsory insurance records, the statistics of voluntary insurance give only approximate figures calculated from partial data. The percentages themselves are for various reasons less reliable than those based on compulsory insurance data. Among these reasons it may be noted that the field of application of voluntary insurance is, by its very nature, more variable than that of compulsory insurance. It is true, as has been seen, that the scope of compulsory insurance is frequently changed, but the changes being effected by legislative measures or by regulations published officially are definite both as regards their date and their extent. The scope of voluntary insurance schemes on the other hand may

change, to a greater or less extent, continuously by reason of the voluntary character of the schemes, and these changes, often insignificant during a short period, may in the long run seriously impair the comparability of the figures. It may be asked, for example, whether in consequence of the recent increase in the number of trade unionists, the statistics compiled by the trade union unemployment insurance funds do not cover at the present time a number of workers more liable to become unemployed than the élite formerly covered when the unions were smaller. If this is true then it follows that in the case of equal unemployment throughout the whole of the working population before and after the war, the percentages of unemployed shown by the statistics of the trade unions for the post-war period would be higher than those before the war. In other words, part of the increases in the percentages of unemployment shown by the trade union figures during recent years in relation to those before the war would be due to differences of a statistical character and not to differences in the phenomena under observation.

The statistics of voluntary insurance are influenced not only by variations in the personnel insured but also, as in the case of the statistics of compulsory insurance, by the conditions of administration of the insurance schemes themselves [1]. These conditions are perhaps more variable in case of optional than in the case of compulsory insurance. Various essential conditions are determined by law or by administrative regulations, but each fund has a certain liberty of action, and when it uses this liberty to modify different details of administration having an influence on the numbers receiving benefits (e.g. the length of the period of « probation », the lenght of the « waiting period » and the length of the period during which benefits are paid), those making use of the statistics are not always in possession of the information necessary to enable them to make satisfactory allowance for the effects of the modifications.

It is evidently necessary also to know what is the exact significance of the unemployment fund figures. Do they include only the unemployed who have received benefits or do they include all the unemployed covered by the organisation whether in receipt of benefits or not ? In the first case, the information is more exact, but in the second case it is more complete and has almost the

[1] See INTERNATIONAL LABOUR OFFICE : *Unemployment Insurance; Comparative Analysis of Legislation.* Studies and Reports, Series C (Employment and Unemployment) No. 10, Geneva, 1925.

same value as the number of "books lodged" which has been considered in the discussion above of the British compulsory insurance statistics. It is desirable that the statistics should include both series of figures. The first gives the better measure of the fluctuations of unemployment; the second in relation with the first gives some idea of the degree in which a voluntary insurance organisation covers the risk of unemployment among its members.

The inferiority of voluntary insurance statistics as compared with those of compulsory insurance is due to the fact that whereas the latter are generally administered uniformly in the different industries to which they apply, the rules according to which benefits are paid in the case of voluntary insurance often vary from one industry to another. In consequence, comparisons should not be made between the percentages of unemployed supplied by the trade union unemployment funds of two different industries without first finding out to what extent in paying benefits the different conditions applied by the funds may have affected these percentages.

The classification of the unemployed into industrial or occupational categories according to a uniform system is more difficult in the case of statistics of voluntary insurance supplied by the trade unions than in that of the statistics of state insurance records. The latter may without great difficulty be classified in a number of different ways, and may easily be adapted so as to conform, as regards industrial classification, to the system adopted in the general census of the population, the value of which has already been recognised by most official statistical departments [1]. This adaptation is not possible in the case of the statistics supplied by the trade union unemployment funds for the industrial classification of the members covered is necessarily determined by the way in which these organisations are constituted. This depends on the requirements of trade union action and cannot be stereotyped according to a given system and, in most countries, is subject to continual variation. In consequence there are difficulties in comparing the trade union percentages of workers unemployed classified by industries with other series of statistics classified by industries on a different plan. There are also difficulties in comparing the percentages for any given

[1] See the Study already mentioned on the *Methods of Compiling Statistics of Unemployment.*

industry at different dates between which trade union organisation may have undergone important modification as regards the industrial classification of its members. In spite of these reservations, however, the unemployment percentages based on the trade union records should be ranked among the best data at present available.

Even in Great Britain, the statistics of the trade unions which pay unemployment benefits to their members are still of value notwithstanding that statistics of compulsory insurance are compiled. In the first place they allow comparisons to be made for periods before the system of compulsory insurance was established. Then the existence side by side of two series of figures enables statisticians to check the one by the other and by comparing the changes shown by each series to estimate the extent to which certain differences indicated as to the movement of unemployment may be due to modifications in the statistical methods adopted in the case of one or the other series rather than to actual changes in the phenomena under consideration. Thus an examination of the diagrams given in the Ministry of Labour Gazette showed that, in 1922 and at the beginning of 1923, unemployment as indicated by the curve based on trade union data was distinctly higher than that shown by the curve based on insurance statistics, while during the remainder of 1923 and through the year 1924 the relation was reversed. This leads to the conclusion that, according to the trade union curve, unemployment would appear to have been reduced during the last two years to a greater extent than is shown by the statistics of compulsory insurance. The figures for corresponding periods are as follows :

Percentage of Unemployment in Great Britain

Average for the year	Among insured workers	Among trade unionists
1922	14.0	15.4
1923	11.6	11.5
1924	10.4	8.1

If it is agreed that, during the period covered by the figures, the basis on which the trade union statistics were compiled was relatively stable, it follows, as has been pointed out above on the authority of the Ministry of Labour, that in consequence of changes in the administration of the insurance system, the statistics of compulsory insurance under-estimate the real diminution in the number of workers unemployed.

Statistics compiled from the records of trade union unemployment funds are at present published regularly in the following eight countries : Belgium, Denmark, Germany, Great Britain, Hungary, the Netherlands, Norway, and Sweden. Systems of optional insurance are also in operation or are on the point of being introduced, under state control, in Czechoslovakia, Finland, France, Spain, and Switzerland, and it may be hoped that similar statistics will be available before long for each of these countries.

In certain countries, such as Germany and Great Britain, the statistics published show only the percentages of unemployed and, either directly (e.g. in Great Britain), or indirectly (e.g. in Germany) the actual numbers. In other countries, such as Belgium and the Netherlands, the statistics of voluntary insurance institutions give, in addition, figures either absolute or relative, as to the number of days of unemployment during a given period.

These last figures are clearly of interest. It should be recognised, however, that even if the statistics do not give these figures directly, it is generally possible to calculate them approximately from other data. If, for example, from the monthly compilations of the numbers unemployed on a given day it is possible to calculate a sufficiently accurate average for the year, the approximate number of days of unemployment during the year may be estimated by multiplying that average by the number of working days in the year.

In cases where both series of data are compiled, namely the numbers unemployed and the number of days of unemployment, a similar calculation allows the value of the two series to be tested the one by the other. Take, for example, the average number of unemployed workers on a given day per hundred workers insured as given in the Belgian *Revue du Travail ;* if these averages are reasonably exact it is evidently sufficient to multiply each of these numbers by 6 (the number of working days in the week) in order to obtain approximately the average number of days of unemployment per week among the hundred insured workers. Now the *Revue du Travail* gives statistics of the number of days of unemployment per week per hundred insured workers in the case of workers covered by optional insurance organisations, the figures being obtained by direct compilation from the records of the organisations. These figures may be

compared with those calculated by the method indicated above, the results for the last four years being as follows :

AVERAGE NUMBER OF DAYS OF UNEMPLOYMENT PER WEEK PER 100 INSURED WORKERS IN BELGIUM

Years	Number calculated from the average number unemployed on a given day	Number obtained directly from the records of the number of days of unemployment
1921	21.6 × 6 = 123.6	67.3
1922	6.4 × 6 = 38.4	24.9
1923	2.7 × 6 = 16.2	7.6
1924	3.2 × 6 = 19.2	9.4

The differences between the two series call into evidence the weakness of the statistics supplied by voluntary insurance organisations. Should it be concluded that the average percentages of unemployed give an exaggerated view of the situation or, on the other hand, do the statistics of the days of unemployment give an understatement of the facts ? A rough solution would be to take the average ; actually the method to adopt is to examine carefully the sources of both series, taking into consideration the methods by which the data are collected and compiled, and thus to determine the significance and value of each series. Such an examination will not for the moment be attempted, the preceding observations having been made mainly to show, by means of an example, the kind of questions which the " consumer " of unemployment statistics is likely to raise, and in consequence that the " producer " of the statistics should give with his tables all the explanations necessary for their interpretation. At first sight, in the case under consideration, a preference may be expressed for the compilation of statistics of the numbers unemployed on a given day rather than for that of the number of days of unemployment during a given period, for the first is evidently easier to understand than the second. Further, if information is required as to the number of days of unemployment in respect of which benefits have been paid, all that is needed is to examine the account books which are carefully controlled and necessarily well kept ; but when to the number of days of unemployment in respect of which benefits have been paid, the number must be added of the days for which benefits have not been paid, one cannot

hide the fact that more or less arbitrary estimations are involved, and in consequence the unsatisfactory character of the information on this point supplied by the trade unions. Actually it would appear that the conclusion may be drawn that a considerable number of days of unemployment escape their observation.

The Dutch statistics are somewhat different. They show, in the monthly tables, not the percentage unemployed on a given day, but the percentage of unemployed workers registered during a week, a vaguer conception, quite adequate to measure relative changes in unemployment, but difficult to use, even with the reservations give above, to obtain any idea as to the actual volume of unemployment. The statistics give not only the average number of days of unemployment per week sustained by the total number of workers covered, but also the average number of days of unemployment per week per unemployed worker (and not per insured worker, as was the case in Belgium). Though not allowing any conclusion to be reached as to the actual volume of unemployment the two Dutch series have, however, the advantage that the one supplements the other, the first indicating relative changes in the number of workers unemployed, while the second shows changes in the average intensity of unemployment in the case of these workers. The statistics show, for example [1], that in July 1924 among each 100 workers covered, an average of 7 were unemployed for part or the whole of the given week, and also that for those who were unemployed the average period of unemployment during the week was 5.2 days.

The Dutch statisticians have also effected a combination of the two sets of data into a single index established by relating the total number of days which might have been worked during the period covered by all the workers available for work and covered by the statistics, to the number of days of unemployment, account being also taken of partial unemployment due to a reduction in the number of hours worked per day.

A check on the lines of that applied in the case of the two series of Belgian figures raises similar doubts as to the accuracy of the Dutch statistics of the days of unemployment ; but account should be taken of the fact that the Belgian statistics are compiled once a month only, while the Dutch figures are compiled each

[1] *Maandschrift van het Centraal Bureau voor de Statistiek.* Jan. 1925, p. 2.

week. Evidently the results are more likely to be accurate in the case of the weekly compilations.

Statistics based on Estimates made by Trade Unions

Certain countries where a compulsory or voluntary insurance does not exist, publish regular statistics of unemployment based on returns from trade unions although the latter do not pay unemployment benefits to their members. This was the case before the war in France, and up to recent years in New York and Massachusetts, and is still the case in Australia and Canada,

The statistics thus obtained might in principle be considered superior to those based on statistics of insurance, for they are independent and not influenced from time to time or from one industry to another by differences in the administration of the insurance scheme. This theoretical superiority, however, is also an element of weakness, for information supplied by the trade unions who do not pay unemployment benefits to their members, is generally only a more or less rough estimate, for the unions are not specially in a position to compile statistics. Further, unions which do not possess any system of mutual aid for their members such as unemployment funds are often much more unstable, and show great variations in their membership than other unions. They therefore afford a more unfavourable field of observation.

With these reservations the statistics published by Canada as to trade union unemployment are the same kind as those discussed in the preceding section. They relate to a given day of each month, and give both the absolute number of unemployed and the percentage of the total number of individuals covered by the enquiry.

The Australian statistics have less value : first because they are only published once a quarter ; secondly and especially, because they do not distinguish unemployment due to lack of work from that due to illness, accident or other incapacity, except at the end of the year.

Statistics of Public Employment Exchanges

If unemployed persons were compelled to register at a public employment exchange, and if those workers in employment who desired to change their employment were not permitted to register (which is not in any way desirable), public employment exchanges

would become a convenient and efficient system for giving from day to day, or at less frequent periods, the total number of unemployed.

The first of these two conditions is almost realised whenever the public employment exchange system is in close connection with a system of compulsory insurance, or with a system of general assistance so that registration at a public employment exchange is an indispensable condition for the receipt of unemployment benefit or relief. In these cases the statistics given by the employment service are almost identical with those supplied by the insurance scheme. Even in these cases, however, certain differences are noticeable. For example, in Great Britain and Northern Ireland the following are the figures for certain dates in 1924 :

1924	Books lodged	Applications outstanding from workpeople
24 March	1,137,683	1,063,438
23 June	1,084,517	1,021,536
22 September	1,240,045	1,184,764

In comparing these two series of figures it will be noted, probably with surprise, that the number of books lodged by unemployed workers is greater than the number of applications outstanding at the same date in the employment exchanges. The opposite result might have been expected, since applications for employment are also registered at the exchanges from non-insured workers such as agricultural and domestic workers, or from employed workers who wish to change their employment. It must therefore be concluded that the number of insured unemployed workers who do not register themselves as wanting work at the exchanges (because in most cases they have exhausted their right to benefit) is even greater than the difference between the above figures [1].

[1] Since October 1924 the *Ministry of Labour Gazette* has ceased to publish "the number of applications outstanding at the end of the week" but "the number of workpeople registered as unemployed". This last number is obtained very approximately by adding to the number of applications for employment, half of the number of workers receiving benefit in respect of systematic short time. The resulting figures are still below the number of books lodged. Moreover, it is not evident what further light is thrown on the unemployment situation by these figures other than that given by the number of books lodged.

Many other countries also publish periodical statistics of workers registered for employment at a given date at public employment offices, but these figures, although very interesting as throwing light on the administration of the employment service, cannot be considered as representative of the absolute number of unemployed in the country. They are, however, very useful as an index of the state of employment, but in those countries which also possess statistics of the percentage of unemployed in trade unions or in insurance institutions, they do not throw any further light. They are useful therefore, as being systematic of the state of employment in those cases where the percentage cannot yet be given.

In Switzerland, for example, while awaiting the more complete statistics which it is hoped will result from the operation of the law of 17 October 1924 on voluntary unemployment insurance, the value of employment exchange statistics is all the greater in that the system of unemployment relief, mentioned above, formerly compelled the unemployed to register themselves at the employment exchanges, and it is affirmed by the administrative authorities that as a result of the habits thus formed, the number of unemployed who do not register themselves now that they are no longer obliged to do so in order to receive relief, must be very limited.

In Germany also, the employment service has reached such a degree of development that the information which it furnishes can be considered as generally representative of the labour market. If the curves published in the *Reichsarbeitsblatt* for 1923 and 1924 during which the labour market was subject to very marked fluctuations are compared, the way in which the curve showing registrations follows very closely that of the percentage of unemployed in trade unions and that of unemployed receiving relief, is very striking.

In Norway, the number of registrations at public employment exchanges are thought to be sufficiently exact as to be used for the purpose of determining the total number of unemployed in the country. In the *International Labour Review* for February-March 1923, Mr. J. Hvidsten, Inspector of Unemployment Exchanges and of Unemployment Insurance, states "on the basis of various calculations which are too detailed to examine here, it has been decided that by increasing the number of applicants by 60 per cent. an approximate accurate figure of the total number of unemployed may be obtained". Mr. Hvidsten hastens to add,

it is true, that this important reservation : "the accuracy of this figure varies, however, with the time of the year, as fluctuations in the chief branches of industry may alter the proportion". Generally, however, it is advisable to use statistics of employment exchanges only as an index of fluctuations in the labour market, and not to deduce from them even approximately the total number of unemployed. The best statistical data given by employment exchanges are no doubt the relation between the number of registrations and the number of vacancies notified at a given date. Their value will be very great where the employment exchange system has a monopoly, in law and in fact, of registrations and notification of vacancies, and their value will be all the greater as this condition is approached. It goes without saying that in those cases where the registration of workers is practically compulsory for a very large number of people without the registration of vacancies being also compulsory, the large mass of registrations would so overwhelm that of the vacancies notified that any comparison between the two would be without meaning. It is for this reason no doubt that this information is not given in Great Britain.

In those countries, on the other hand, in which recourse to the employment exchanges is, in law and in fact, purely optional for the two parties, the index given by the relation of the supply of labour to the demand is not without value. But it is not advisable to place too much confidence in it as is shown by certain comparisons which have been made between the fluctuations of this index and the fluctuations of the employment percentage.

For example, the Swedish publication *Sociala Meddelanden* [1] publishes two curves covering the five years 1920-1924, one of which shows the unemployment percentage among trade unions, the other the relation of workers registered to vacancies notified. Although generally parallel, they show in 1921 a striking disagreement. According to the trade union curve, the economic crisis was so great that it completely masked in this year the seasonal improvement in the labour market which is ordinarily expected in Sweden in the springtime after the acute winter unemployment. According to the employment service curves the seasonal fluctuations were evident in 1921 as in other years.

[1] *Sociala Meddelanden*, 1925, No. 2, p. 91.

To explain this divergence it would perhaps be sufficient to find out if the employers in those industries having a seasonal character do not use the employment exchanges more than the other employers, for if this were the case there would be nothing surprising in the fact that seasonal fluctuations are more marked than in the trade union chart. Similarly, it would be advisable to find out whether among the trade unions covered by the returns, seasonal industries are not represented proportionately less than the others.

This example is probably sufficient to show to what extent it is necessary to take account of the industrial distribution of the workers on which the statistics are based if it is desired to draw from these general conclusions concerning the whole of the working population. This has already been pointed out as regards statistics based on compulsory or voluntary insurance, and it is no less true for statistics of employment exchanges. These latter statistics are even more uncertain than the others, for if the field of application of voluntary insurance is more difficult to define from time to time from that of compulsory insurance, it is all more difficult in the case of statistics of employment exchanges. These statistics therefore can only be considered as of minor importance in dealing with the problem of unemployment.

This is not the case, however, if it is desired to consider the operation of public employment exchanges. Other elements, however, must then be taken into consideration. Not only the demand for the supply of labour on a given date and the relation between the two, but also the number of transactions affected in a certain period, workers registered, vacancies notified, placings effected, and the relation between these different elements. Most countries publish monthly statistics on the subject.

Statistics of Employment

Statistics of employment, that is, statistics showing the number of workers occupied in different industrial establishments, do not give any indication as to the absolute number of unemployed. If in a period of great industrial activity the number of workers employed is N, and at a later date of less industrial activity it is n, the number of unemployed at the latter date is evidently not $N-n$. The statistics in effect never cover the whole of industry, and it is of course, possible that a certain number of workers no longer

employed in the establishments covered are now employed in other industries or establishments not covered by the statistics. Conversely, workers may have found employment at the second date who were not covered at the first date.

Statistics of employment are therefore only symptomatic of the unemployment situation. These statistics exist chiefly in English-speaking countries. In the United Kingdom such statistics were published 10 years before the war, but were limited to certain industries only. In the United States, in Canada, in South Africa, they are more recent, but are of greater importance. In Continental Europe, only Germany, Poland, Switzerland, and Sweden publish statistics of this kind, but in a slightly different from. In a few countries, for example France and Belgium, this class of statistics is published in respect of the mining industry only.

The information generally obtained from this source is the percentage increase or decrease in the number of persons employed from one month to another or from one year to another in a certain number of establishments in the principal industries. Later, these data have been used so as to give a continuous index of employment.

The more difficult problem in the collection of these statistics is the selection of establishments to be included. In the first place, it is important that the sample should be sufficiently large. In the majority of countries an important proportion of the industrial population — some 30 to 40 per cent. — is covered. In some cases, in Canada, Wisconsin and Illinois (U.S.A.) mining, transport, and commerce are covered, as well as manufacturing industries. However large the samples are, it is necessary that they should be representative of the industries of the country, of the different districts of the country, and of the different kinds of industrial establishments.

An investigation just concluded in the United States into the unemployment crisis of 1920-1922 shows that, generally speaking, reductions of staff are sensibly less is small establishments than in large ones [1]. Although the results of this enquiry cannot be accepted as applicable to other countries without further investigation, they show the importance of this problem of selection, for in this class of enquiry the natural tendency is to confine

[1] *Business Cycles and Unemployment.* Report of a Committee of the President's Conference on Unemployment. New York, 1923.

oneself to large establishments or at least to give them a preponderating place, for they are usually the most able and most willing to collaborate regularly.

A further difficulty is that it is not always possible to cover the same number of establishments each month. Only in a few countries, for example, South Africa and the State of Wisconsin, have the same identical number of establishments been covered for a period of several years. In other countries, the returns always being voluntary, a certain number of replies are not received each month. In addition, from time to time establishments disappear and are replaced by others. Similarly it is necessary to take account of the gradual changes which take place in the industrial structure of a country. Under these conditions only percentages of increase or decrease from month to month or from year to year have been published, and no attempt has been made to obtain continuons series.

When, however, changes in the establishments covered by the enquiry are not too considerable, these percentages are probably of equal value from month to month, and a continuous index can be compiled from such a base. This point of view is now recognised and is adopted in most countries. The countries in which an index of employment is now regularly published are as follows :— South Africa, Canada, the American States of Illinois, Massachusetts, New York, Wisconsin, also several indexes for the whole of the United States. In Germany, an index of employment is also complied, but on a quite different method. Indices of this kind are calculated by taking 100 as the base number for a certain year, by adding or deducting month by month the percentages of increase or decrease. Separate indices are calculated for different groups of industries, and a weighted index for the whole of industry is then calculated by allowing for the importance of the different industries.

Apart from the imperfection in the figures already dealt with, reservations are necessary in interpreting these indices, for they are affected not only by the cyclical and seasonal fluctuations of economic life, but they also reflect in a certain measure the gradual growth of industry in the country.

In addition to these statistics of employment, mention should also be made of certain other statistics of industrial activity which are also of value as being symptomatic of the state of employment, either generally or more particularly for certain industries. Such are the number of furnaces in blast, the num-

ber of coke ovens at work, the number of spindles in activity, etc. The examination of this class of statistics would, however, go beyond the scope of this report.

Special Enquiries and General Censuses

A general census of the population takes place usually every ten years, and it is therefore not possible to use any information obtained from this source as indicating the evolution of unemployment. All it gives is an instantaneous photograph of the phenomenon on a given date. For this purpose, as M. March has said in his report presented in 1903 to the International Statistical Institute, "a general census is the only operation which gives a complete enumeration of the unemployed; it gives for each person unemployed his civil condition, his occupation, his family position (and also nationality), which is given for each inhabitant".

The chief advantage of a general census of the unemployed is to enable a comparison to be made between the total number of unemployed at a given date and the statistics given by insurance schemes or by the employment exchanges. In effect, these figures are only partially complete and do not give any definite information as to the total amount of unemployment. On the other hand if they can be compared with the total number of unemployed given by a general census carried out at the same period it should be possible to estimate by interpolation during the period between two censuses the total number of unemployed corresponding to the statistics available for the different dates during this period.

In certain cases, however, the census question is so general that it is impossible to distinguish in the returns cases of unemployment resulting from lack of work from those resulting from other causes such as sickness, accident, strikes. For this reason the conclusions arrived at in 1912 by the Joint Committee of the International Statistical Institute and the International Unemployment Association affirmed that "instead of asking the workman if he is without work or without and employer, the census bulletin should formulate as the question "Have you worked on the . . . ?, and with whom ?". To all work-people who reply negatively to the first question a supplementary form should be given asking them for details as to the causes of their unemployment. Drafted in this manner, confusion as between

the different kinds of unemployment is avoided and it is possible to consider only those in which unemployment is due to lack of work.

Among the census enquiries made since the war, and of which results have already been published, very few contain a question relating to unemployment. The Swiss census of 1920 states under the heading "Position as regards occupation" that all workers who at the date of the census were without work should reply to the question by the words "at present out of work". Drafted in this manner, however, the question will not be able to give precise information as to the unemployment due to lack of work.

On the other hand the South African census of May 1921 contains a question much more precise, since it asks for information as to all cases of unemployment of more than seven days, together with the cause thereof. The statistics published give for the census date the number of unemployed (white and native) classified according to civil condition, place of birth, age, occupation and place of residence.

A further method other than that of the general census can, however, be used for obtaining indication as to the distribution of unemployment by age, by nationality, etc. This is the method of sampling, that is the observation of a number of examples chosen at random, which can be taken as representative of the whole body of unemployed. This method was applied in 1924 in Great Britain in an enquiry covering 10,000 individuals selected at random among those unemployed who were claiming benefit (about one million) [1]. This report gives detailed information on the personal situation, physical condition, health, industrial history and duration of unemployment. Similar information is often obtained from the annual or other reports published by insurance organisations or employment exchanges as they show with much more detail than in their monthly statistics, certain circumstances connected with unemployment, such as the average duration, incidence of unemployment according to age, etc.

Finally, mention should be made as a supplementary source of information on unemployment statistics, special enquiries undertaken from time to time by employers' and workers' organisations or by municipal and communal authorities.

[1] *Report on the investigation into the personal circumstances and industrial history of 10,000 claimants to unemployment benefit, 1924.*

II

PARTIAL UNEMPLOYMENT

Partial unemployment may be defined as unemployment which does not result in a complete lack of a job but of a lack of work within the job. It generally takes the form of a systematic reduction below the normal provided for in the collective agreement or other contract, either of the daily hours of work or of the number of days worked per week.

Short time workers who are unemployed for certain days in the week can be counted by the same statistical processes as the totally unemployed and in fact they often are so counted. Statistics of "systematic short time" given by the British compulsory insurance scheme are statistics of this class of short time worker. This is the case also with the Belgian statistics of "intermittent unemployed" *(chômeurs par intermittence)* which are given by the unemployment insurance funds. Neither the one nor the other can be considered as complete, both being liable to the faults (already discussed) arising in all statistics derived from insurance institutions. They do not give a complete account of the phenomenon but only of that part covered by insurance.

From the economic point of view there is a great difference between the completely unemployed worker and the worker unemployed only for certain days of the week, since the latter is not without a job, while the former is. But from the statistical point of view the two cases are difficult to distinguish for the fact statistically recordable is lack of employment on a particular day, whilst the presence or absence of a contract of employment or a job is not dealt with.

In fact the British authorities have discontinued since September 1924 the distinction between totally unemployed workers and those on systematic short time and only give one total includ-

ing the two figures. This also is the case with the Belgian statistics in its calculation of percentages, for although the number of totally unemployed is given separately from that of intermittent employed, only the percentage of the total of these two to the total insured workers is published. On the other hand German statistics based on trade union returns clearly distinguish totally unemployed from partially unemployed and it appears that this last category includes both categories of partially unemployed workers, that is those working reduced days per week and those working reduced hours per day.

Although in the Netherlands an index has been calculated which takes into account both complete unemployment and the two forms of partial unemployment it seems that the general tendency now in most countries is to distinguish on the one hand the statistics of unemployment on a particular day whether this unemployment be total or partial and whether the unemployed worker has or has not a job, from the partial unemployment of reduced working hours. Of this last class of short time worker no satisfactory or even approximate measure yet exists but it might be possible to obtain satisfactory information by means of regular returns from employers.

CONCLUSIONS

I. Improvement in Unemployment Statistics from the National Point of View

Unemployment Insurance Statistics (Compulsory or Voluntary)

The best source of regular statistical information concerning unemployment is obtained from systems of compulsory insurance against this risk, or where this is lacking, from voluntary insurance systems. In all the countries which possess such systems it does not appear, however that all this source of information has been fully utilised. It is essential in dealing with unemployment, that each country should have at its disposal statistics as complete and exact as possible, and it is therefore desirable to recommend the information which should be available.

The minimum which might be expected is as follows :

(1) Publication at least once a year and, if possible quarterly or even monthly, of the number of insured workers and the percentage they form of the total wage-earning population.

(2) Publication, at least once a month, of

(a) the number of unemployed in receipt of benefit on a given date and the percentage they form of the total number of insured unemployed ;

(b) the number, as close as possible, of insured unemployed workers, who are in receipt of benefit or not, and the percentage they form of the total number of insured workers.

(3) These statistics should be given separately for male and for female workers.

(4) Information should be given not only for all industries together but for as large a number of separate industries as possible, or at least for those main groups of industry used in the general population census.

(5) Publication once a year of the total amount paid in unemployed benefit during the year.

Supplementary Trade Union Statistics

Where statistics based on insurance (compulsory or voluntary) are not possible it is desirable to obtain from workers' organisations the following information :

(a) Total membership ;

(b) Number of members unemployed owing to the lack of work.

This information should serve as a basis for regular statistics giving :

(1) Monthly, the total number and percentage, unemployed among the members of trade unions.

(2) Annually, the number of trade union members covered by the enquiry as a percentage of the total number of wage-earners.

(3) This information should distinguish males from females and be given by industrial or occupation groups as close as possible to that of the general census.

These statistics are useful not only in those countries which have no system of unemployment insurance but also as complementary information in those countries where insurance does not cover the whole working population.

Employment Exchange Statistics

It is desirable that information each month should be available on the stade of the labour market, viz :

(1) The number of persons registered, on a given date, in the public employment exchanges as in search of work.

(2) The number of these persons as a percentage of the number of vacancies registered at the same date.

It is also desirable to know each month some indication the operation of employment exchanges, such as :

(3) The number of registrations during the month ;

(4) The number of vacancies notified [1] during the month.

(5) The number of placings effected during the month.

The above information should be given separately for men and for women and classified in the same way as that adopted for the statistics of insurance or of trade unions.

As employment exchanges are in a favourable position for classifying unemployed workers according to their occupation rather than according to their industry, it is desirable that they should publish supplementary statistics showing separately registrations of skilled, semiskilled, and unskilled workers.

Statistics of Employment

Statistics of employment based on returns obtained from a more less considerable number of employers do not give any information on the total number of workers occupied in the economic life of a country, but, in so far as the successive enquiries relate to the same establishments, they furnish an approximate index of fluctuations in employment in these establishments. The statistics should be at least monthly and should distinguish between men and women as well as between the different industries tc which they relate ; these industries being classified according to the general industrial classification adopted in the census.

A general index for the whole of the industries considered should be weighted in such a way as to take into account not only the numerical importance of each industry in the enquiry but also its importance in the country as a whole after allowing for the industries completely excluded from the enquiry.

General Censuses and Special Enquiries

(1) It is desirable that advantage should be taken of the general census of population to ask information as to unemployment due to lack of work. The information so obtained should be classified by industry, age, and other groupings into which the general working population is classified.

[1] "Vacancies notified" is intended to mean the "number of jobs vacant" and not the number of orders received from employers which may in effect cover one or several jobs vacant in the same undertaking.

(2) Special enquiries in a particular locality, industry, or occupation have a special interest if by their means it is possible to obtain further details than are given by the regular statistics on unemployment. This is similarly the case with the special enquiries which arise out of the operation of systems of insurance or employment exchanges.

II. International Comparability of Unemployment Statistics

The comparability of statistics of unemployment will be discussed in this section from the point of view of the occupied population as a whole. The comparability of special statistics for particular industries or occupations is not less important but it depends fundamentally on the comparability of the industry or occupational classifications of the different countries, a problem which forms the subject of a special report [1]. In so far as the classifications adopted already allow the international comparison of statistics of unemployment in certain industries or occupations, the following conclusions will be just as applicable for these comparisons as for those of the working population as a whole.

It should be remembered, however, that except in the special case of general censuses unemployment statistics are not compiled by a direct and complete enumeration of the unemployed. Statistics are derived for the most part, as has been seen, from systems of unemployment insurance or employment exchanges. They are therefore limited by the operation of these systems, which themselves depend on many local or industrial circumstances. It is therefore impossible to attempt to make them uniform internationally. If two countries, for example, both give the number of their unemployed in receipt of benefit and their percentage to the total insured unemployed workers (receiving benefit or not) it is possible to draw fairly safe conclusions as to the liberality of the conditions for receipt of benefit of the two systems [2]. The value of the comparison will depend still more on the degree of accuracy with which the number of unemployed not in receipt of benefit have been counted, an opera-

[1] INTERNATIONAL LABOUR OFFICE : *Systems of Classification of Industries and Occupations.* Studies and Reports, Series N (Statistics).

[2] *Not taking into account the rate of benefit. If the two countries, however, also publish the total amount of indemnities paid it will be possible also to compare the relative value of the system of benefits.*

tion much more difficult than that of the enumeration of the number in receipt of benefit.

If it is desired not to limit the comparison to the operation of the insurance systems but also to compare the relative importance of unemployment in the two countries it is possible to do this approximately if the two countries publish in addition, the percentage of the unemployed insured workers (in receipt of benefit or not) to the total of the insured workers. But this comparison will be much more difficult than the first for it depends on the accuracy of both terms of the percentage, i.e., (*a*) Has the total of unemployed workers been calculated with the same degree of exactness in the two countries? (this will depend to a large extent on the proportion which the unemployed not in receipt of benefit bear to the unemployed in receipt of benefit) ; (*b*) Is the total insured population in the two countries equally representative of the total working population, in other words, is the average risk of unemployment for the working population for each of the two countries in the same proportion as the average risk of unemployment for the insured population? It is impossible to reply to this question without knowing the total percentage of unemployment in the working population, although this is generally unknown it is possible to obtain approximate estimates.

The conclusions to be drawn from these remarks given merely by way of example and which apply also generally to statistics derived from employment exchange services are : (1) It is eminently desirable in order to facilitate international comparisons that precise and detailed indications as to the methods to be adopted in compiling statistics of unemployment should be given and kept up-to-date by the competent Government departments ; (2) By means of this information it is advisable to determine as exactly as possible what is the representative value of these statistics compared with ideal statistics which would give at regular periods, the total number of unemployed and their percentage to the total working population.

For this purpose a certain number of general principles might be adopted internationally. The difficulty of a definition of unemployment which should be completely satisfactory for international statistics, has already been recognised [1]. It has also

[1] INTERNATIONAL LABOUR OFFICE : *Methods of Compiling Statistics of Unemployment.* Studies and Reports, Series C (Employment and Unemployment) No. 7, 1922, pp. 9-27.

been admitted that such a definition is after all only of secondary importance. It is, however, of importance wherever an attempt is made to complete or correct the figures available from insurance or employment exchange systems (either on the number of unemployed receiving or not receiving benefit and the number of registrations for employment), with a view to bringing them into line as far as possible with the ideal statistics of which mention has been made above. But as the British Government has stated [1], a formal definition may be advantageously replaced by the adoption of certain common principles :

(1) The ideal population "field" to which the statistics relate should be all persons whose actual normal means of livelihood is employment under contract of service, and also all persons who seek such an employment for the first time, e.g. 9 juveniles who have finished their education, and individuals not hitherto wage-earners, but who seek to become so. (2) The unemployment to be measured is not that due to sickness, invalidity, and trade disputes, but the unemployment resulting from lack of employment or even from lack of work while still in employment. The necessary condition for being counted as unemployed is that the person must have been "not at work" for one day at least.

Unemployment which takes the form of a reduced number of hours of labour per day and not a reduced number of days per week should be given in separate statistics.

These definitions would serve to indicate as exactly as possible the differences which exist between existing statistics and the ideal statistics mentioned above. They would also serve as a guide for the improvement of existing statistics as far as compatible with the efficient operation of the organisations from which they are derived.

Sometimes international comparisons are rendered more difficult by merely technical differences in calculating the percentages and in the number of individuals on which the percentage is calculated. Two different methods exist at the present time. One method consists in comparing the number of unemployed with the total workers normally occupied in the " field " considered. The other method first deducts from this total those indi-

[1] INTERNATIONAL LABOUR OFFICE : *Methods of Compiling Statistics of Unemployment. Studies and Reports, Series C (Employment and* Unemployment) No. 7, pp. 13-16.

viduals who at the date in question are not in a position to have obtain employment for reasons such as accident, sickness, military service, prison, strike, lockout, etc. This second method obviously gives percentages higher than the first and is perhaps more accurate since. If the number of unemployed remains the same from one date to another, while the number of individuals actually available for employment is smaller, the second method gives a greater percentage at the first date than at the second. Other things being equal, an epidemic should diminish the number of out-of-works by lack of employment, similarly with the calling up of important contingents for military service.

It is not, however, perhaps the same in the case of a strike or lockout. In view of the development of collective solidarity among workmen and employers it is more and more rarely the case that trade disputes give greater opportunities of finding employment to the unemployed. The jobs not being done by reason of trade disputes are not vacant in the proper sense of the word and the workers who participate therein are not eliminated from the labour market as are those who are sick or on military service, etc. If this point of view is not admitted, all trade disputes concerning a large number of workers will result in an important reduction in the total number of workers on which the unemployment percentage is calculated, and a corresponding increase in percentage would result even if their absolute number remains the same.

In conclusion, therefore, it would be desirable in calculating the percentage unemployed to compare the number of unemployed with the number of workers usually occupied in the field considered, deduction being made of those who find themselves temporarily off the labour market ; those engaged in trade disputes not being included in this deduction. However, as it is probably particularly difficult in certain countries to give every month the number of sick, incapacitated, conscripts, etc., it is desirable for facilitating international comparisons that those countries in which this enumeration (of sick, incapacitated, etc.) is made, should publish also an unemployment percentage based on the total number of workers normally occupied, without deduction of any kind.

APPENDIX

Statistics of Unemployment published at regular intervals in different countries

The following notes give an outline of the character and scope of the chief official statistics of unemployment which appear at regular intervals. The statistics have often been changed as regards method of publication and of presentation, but the notes here given are limited to the position existing at the end of 1924 or the beginning of 1925. Certain important statistics which have been recently discontinued are, however, indicated.

The countries are given in alphabetical order of their French names.

SOUTH AFRICA

Statistics of Employment Exchanges

These statistics are compiled from the records of the public labour exchanges organised by the central government in the eight chief towns of the Union of South Africa. Figures are given each month of the number of demands for employment, the number of offers of employment and the number of vacancies filled during the month. The data are classified geographically, separate figures being given for the eight towns, and also by occupation, thirteen groups being given for male workers and one group for women and young persons respectively. These figures cover only white labour; for native labour, certain figures only are given as to the number of demands for employment, offers of employment and vacancies filled for men, women, and young persons separately in Cape Town and Kimberley.

Sources: *Monthly Reports of the Ministry of Labour on Employment Exchanges; Monthly Bulletin of Union Statistics.*

Statistics of Employment

These statistics cover a certain number of workers in the chief industries (metal and engineering, earth and stone, wood, leather, food, clothing, printing, vehicles, furniture, building and construction, fuel, light and power etc.) in four important industrial districts (Cape Peninsula, Port Elizabeth, Durban, Witwatersrand). They are based on the reports of 1,295 identical establishments.

The figures published each month are index numbers of industrial activity based on the number of workers employed in the establish-

ments covered by the enquiry, separate data being compiled for the four industrial regions mentioned above.

Source : *Monthly Bulletin of Union Statistics.*

Censuses

Statistics of the total number of unemployed workers, white and native, who had been unemployed for more than seven days, are given in the May 1921 census compilations. The figures show in detail at the date of the census the distribution of unemployed workers classified according to age, occupation, sex, place of origin and of residence.

Source : *Third Census of the Population of the Union of South Africa; enumerated 3 May 1921.* Report with summaries.

GERMANY

Statistics of State Relief

The statistics relating to unemployment relief in Germany apply in principle to all wage-earners receiving more than 2,700 rentenmark per year, except in the case of agricultural workers whose employment is relatively stable, fishermen, domestic servants, and apprentices. The statistics are based on reports received from employment exchanges regarding the number of workers receiving unemployment benefit.

The returns published *(Reichsarbeitsblatt)* show : the number of workers receiving normal unemployment benefit (men and women separately), persons entitled to receive a family allowance, and workers under 18 years receiving any allowance whatsoever ; the number and percentage, within the group of unemployed persons receiving the basic allowance, both of those who are required to perform certain labour in return for benefit, and of those who are engaged on relief works ; the number of unemployed workers having received relief for a period of more than three months, and for more than six months; the percentage of unemployed members of sickness funds receiving benefit ; expenditure occasioned by the various systems of unemployment relief (including the cost of administering employment exchanges).

These statistics are published monthly for the different States and for the whole of the Reich, both including and excluding occupied regions. (No distinction is made between industries.)

Moreover, most of these statistics are also published for the various large towns ; but they relate in this case only to several typical industries.

In the case of Prussia there is also given by provinces the number of unemployed workers receiving allowances, either basic or supplementary (men and women separately), and the percentage which these represent of the total membership of sickness funds.

Statistics of Voluntary Insurance

Total Unemployment

The statistics relating to voluntary insurance apply to about three and a half million trade union members in the principal industries within the whole of the Reich (metal, engineering, textile, leather, wood, food, clothing, building, stone and earthenware, etc). They are

based on the returns received from trade unions administering unemployment insurance.

The monthly returns (published in the *Reichsarbeitsblatt*) show the number of trade union members covered by the enquiry and the percentage of unemployed workers registered on the last Saturday of each month. The statistics are divided according to six industrial groups, and, within these groups, acording to the principal trade unions to which the workers belong.

Furthermore there are published quarterly in the *Vierteljahrshefte zur Statistik des Deutschen Reichs* the following statistics : the total number of cases of unemployment registered (whether relief is given or not), and the percentage which this represents of the trade union members covered by the enquiry ; the number of persons receiving benefit, the number of days during which benefit has been paid and the amount paid for relief during each quarter, distinction being made between men and women ; the number of days lost on account of unemployment (including the waiting period), the number of days' work available for the trade union members concerned and the proportion which the former bears to the latter (without distinction for sex). The statistics mentioned in this paragraph have not been published since 1924.

Short Time

The statistics relating to short time apply to approximately 3 million trade union members in the principal industries. (The same industries as in the case of total unemployment). They are based on trade union returns showing short time amongst their members.

The statistics published monthly by the *Reichsarbeitsblatt* are as follows :

(*a*) Percentage of short time workers amongst the members of the trade unions at the end of each month, distinction being made according to sex, industrial group and, within these groups, according to the principal trade unions to which the workers belong ;

(*b*) The number of cases of short time, classified according to the extent of loss of work (1-8 hours, 9-16 hours, 17-24 hours, 25 hours and more, lost per week), and the percentage which these various groups represent of the total number of cases of short time recorded (without distinction for sex or industry).

STATISTICS RELATING TO EMPLOYMENT EXCHANGE ACTIVITIES

The public employment service of Germany has reached a very advanced stage of development, in consequence of which the statistical material which it provides is exceptionally valuable. Since the year 1922, all the communal, local and private exchanges have been coordinated with the official offices in such a way as to form an extensive national system available to workers in all trades.

The statistics relating to the placing out of workers are based on the reports of more than a thousand exchanges (most of which are official). The returns published are as follows :

The number of applications for work and of vacancies offered in the course of the month (including those which remain unsatisfied from the preceding month) ; the number of places filled in the course of the month and the number of applications per 100 vacancies offered. These statistics are published monthly in the *Reichsarbeitsblatt*, for

men and women separately, under two distinct classifications : geographical (Prussian provinces and Confederated States) ; and industrial (29 industrial groups). Moreover, each quarter, the figures relating to the last month of the quarter are compiled in such a way as to show the two classifications combined into one series (*Vierteljahrshefte zur Statistik des Deutschen Reich*).

Furthermore, on the 15th of each month, about 750-800 of the chief exchanges make a record of the persons for whom employment has not been found, and of the vacancies which remain outstanding on the day of the record. The resultant figures are separately presented under the same industrial and geographical classifications (*Reichsarbeitsblatt*).

The form in which these various statistics have been published has changed on several occasions during the last few years.

Statistics of Employment

Employers' Returns

The statistics recorded by employers apply to about one and a quarter million workers in the principal industries (excluding mines, building and the chemical industry for which there are only relatively poor returns). The statistics are based on the reports of more than 2,500 employers — mainly large-scale manufacturers. They indicate the number of persons employed and the general state of activity of the undertaking during the past month, and also show, on the basis of orders received and the availability of raw materials, the probable state of activity during the fortnight to follow.

The statistics reproduced monthly in the *Reichsarbeitsblatt* are as follows :

The percentage of workers who are engaged in undertakings in which the general state of activity has been, according to the reports, respectively "good", "satisfactory", or "bad", and the percentage of those for whom these conditions seem to be assured for the fortnight to follow. In view of the delay entailed in the compilation and publication of these figures, the group showing the three percentages based on the forecast of future conditions relates, at the moment of publication, to the period immediately passed.

Further, a single index is published which is based on figures relating to the month prior to the moment of submitting returns. For this purpose the number of workers engaged in undertakings in which conditions of employment are "good" is multiplied by the co-efficient 3, and in the case of those in which conditions are "satisfactory" or "bad" the co-efficients used are seemingly two and one respectively. The three products are then added together. A similar total is obtained for the preceding month on the basis of the reports of the same undertakings and the percentage increase or decrease is determined. And index is then compiled on the "chain system" on the basis of the figures for each month.

Returns submitted by Sickness Insurance Funds

The sickness insurance funds, including virtually all wage-earners, are also able to furnish information upon the degree of employment of the population, in view of the fact that workers' contributions are not demanded when the insured workers are either ill or unemployed.

The monthly statistics published by the *Reichsarbeitsblatt* in this connection are as follows :

(*a*) The number on the first day of each month (men and women given separately), of members of the funds, excluding those who are sick or unemployed, and the percentage increase or decrease which this figure shows in relation to the preceding month.

(*b*) Similarly statistics, classified by industrial group (9 groups), but based exclusively on the returns of industrial funds and covering only about 2 million members.

(*c*) An index number of employment compiled on the "chain system" on the basis of the percentages given by all the funds combined.

Sources : *Reichsarbeitsblatt ; Vierteljahrshefte zur Statistik des Deutschen Reichs.*

AUSTRALIA

Statistics Based on Trade Union Estimates

These statistics cover about 400,000 trade unionists in the principal industries (mines, metals, engineering, food, clothing, wood, furniture, printing, building, transport, etc.) They are based on the returns of about 400 trade unions which estimate the number of unemployed (no system of unemployment insurance exists). The statistics show each quarter the number (with percentage) who have been unemployed for at least three days during the course of a given week. Separate figures are given for each of the six Australian States. These figures include not only workers unemployed on account of the state of the labour market, but also those unemployed on account of sickness, accident and other reasons except trade disputes. In addition, each year statistics are published for the different quarters showing the percentage unemployed, classified into 10 groups of industries and also into unemployment due to lack of work and that due to sickness, accident and other causes. Annual percentages of employed and unemployed are also calculated as well as an index number of employment based on these statistics.

Statistics of Employment Exchanges

These statistics result from the operation of the public employment exchanges organised in the different Australian States. As the regulations under which they operate are not, however, always the same, the figures published by the different States are not strictly comparable. The figures published each month are as follows : number of registrations and vacancies outstanding at the beginning of the year, number of registrations and vacancies notified during the course of the year and number of workers placed in employment. Separate figures are given for each State as well as for the whole Commonwealth distinguishing, for the latter, between 14 industries and between men and women.

Sources : *Quarterly Summary of Australian Statistics* (for quarterly figures) ; *Labour and Industrial Branch Report* (for the annual figures).

AUSTRIA

The system of unemployment insurance in Austria works in close connection with the system of employment exchanges and the statistics published by one or the other are not always distinct. However, for clearness, the statistics are classified as far as possible under two headings.

Compulsory Uemployment Insurance

The statistics cover almost the whole industrial population, manual and non-manual, with the exception of those occupied in agriculture and forestry, those occupied in districts expressly classified as rural, those employed as middlemen or sub-contractors, or by several employers, also domestic servants, They are based on the number of unemployed who are in receipt of benefit and do not include those who are fulfilling their "waiting period", nor those who have exhausted their right to benefit. The figures given each month are as follows :

(a) Number of unemployed in receipt of benefit at the end of each month classified into 12 districts;

(b) Number of unemployed registered and the number in receipt of benefit in Vienna, classified into 15 industries.

In addition, every six months the number of unemployed relieved at the end of each month is published together with the statistics of the employment exchanges for the whole of Austria classified into 25 industrial groups.

Statistics of Employment Exchanges

These statistics are based on the operation of the public employment exchanges which deal with all classes of workers including agricultural and intellectual workers. The information available is as follows :

(a) Every six months the number of applications for work and applications for workers, and the number of placings during each month; also the number of unemployed in receipt of benefit under the compulsory insurance scheme at the end of each month. These figures are given without distinguishing sexes but classified into 25 industrial groups. The number of registrations per 100 vacancies notified is also given.

(b) Once a year, the number of applications for work and for workers during the course of the year (including those outstanding at the beginning of the year), the number per 100 vacancies notified, the number of jobs filled, the number of unemployed receiving benefit during the course of the year, classified into 25 industrial groups.

Source : *Statistische Nachrichten.*

BELGIUM

Statistics of Voluntary Insurance

These statistics cover about 700,000 workers, voluntarily affiliated to insurance funds and belonging to the chief industries and to

transport. They are based on the reports of these funds, which are controlled and subsidised by the State. The figures published each month are as follows : the number and membership of the funds covered by the enquiry ; the number of workers totally unemployed and those unemployed intermittently (i.e. by working reduced days per week) on the last working day of the month ; the percentage they form of the number of workers insured ; the change in the total numbers as compared with the figures for the previous month; the average number of unemployed per week per 100 insured members, together with the difference as compared with the average for the previous month ; the number of days of unemployment in respect of which benefits had been paid by insurance funds and the percentage which this number forms of the total number of days of unemployment.

Statistics of Employment Exchanges

These statistics are compiled from the records of the public employment exchanges open to workers of all kinds and established since the war on a national scale. The figures published are as follows : the number of demands for and offers of employment recorded, as well as the number of vacancies filled during the month ; the number of demands for and offers of employment not satisfied at the end of the month. These various series are compiled for men and women separately and together and are classified into 17 industrial groups. In addition similar figures are given for certain special occupations (commissionaires, domestic servants, shop assistants, gardners, accountants, hair-dressers, hotel staff, employees of places of amusement, etc.

Source : *La Revue du Travail.*

CANADA

Trade Union Estimates

These data cover about 150,000 trade union members in the chief industries and in different branches of transport, commerce, the public services, and fishing. They are based on reports received from about 1,500 trade union organisations which supply estimates as to the number of workers unemployed amongst their members (no unemployment insurance system being in operation). The figures, which are published quarterly, give the membership of the trade unions covered and the number and percentage of workers unemployed at the end of each month, by industries (30), by occupational subdivisions (53), and by provinces (8).

Statistics of Employment Exchanges

These figures are compiled from the records of public employment exchanges established in 75 important towns and open to workers in any occupation. The figures, which are published each month, are as follows : the number of demands for and offers of employment during the month ; the number of workers brought into contact with employers and the number of workers for whom employment, regular or temporary, is found during the course of the month, together with the number of workers remaining out of employment and the number of places vacant at the end of each month. These statistics are classified by towns and provinces.

STATISTICS OF EMPLOYMENT

These figures cover about 800,000 workers employed in industry, transport, and commerce. They are based on the reports of about 6,000 employers, who give the number of persons in their employ on the first day of each month. Index numbers are calculated for the different industries, the chain system being used, on the basis of the percentages of increase or decrease in the number of persons employed in identical establishments from one month to another. Indexes are calculated by industrial groups and also for all industries together, the weighted average of the indices for the different industries being taken. The weights used are determined according to the importance of each industry in the economic life of the country. The figures show : the number of employers sending in reports ; the number of persons they employ, and the indexes of employment calculated by the method indicated above. The figures are compiled according to three different systems of classification : by provinces (5), for certain important towns (7), by industries (53), and by groups of industries (8).

Source : *The Labour Gazette.*

DENMARK

STATISTICS OF VOLUNTARY INSURANCE

These statistics cover about 260,000 workers in the chief industries (metal and engineering, building, food, clothing, textile, leather and skins, paper and printing), and also certain branches of commerce, as well as agriculture.

Two distinct series of statistics are published. The first is based on the reports of trade union organisations which regularly distribute unemployment benefits to their members, but these data are published once a year only. They are, however, compiled for each month, figures being given showing *(a)* the number and the percentage of unemployed registered at the end of the month ; the total number of days of unemployment recorded during the month and the number per member of the unions (these figures are given separately for the capital and for the provinces) ; *(b)* the membership and the percentage of unemployed workers in the different unions or groups of unions (38) ; *(c)* an index of unemployment compiled from the percentages of workers unemployed (the base for each month being the percentage of the corresponding months in 1910-1913 = 100).

The second series, published regularly each month, is based on the reports of the employment exchanges indicating the number of unemployed workers registered, and these figures are related to the number of members of trade unions which regularly distribute unemployment benefits, in order to obtain a provisional percentage of the workers unemployed. The figures published are as follows : the number of workers affiliated to the trade unions covered and the percentage of unemployment at the end of each week. These figures are compiled for the country as a whole and also separately for the capital and for the provinces, a distinction being made between workers in the building industry, those in other industries, those in commerce, and unskilled workers.

These two series of statistics give very similar results although the first is certainly superior to the second, which also is published only provisionally.

Statistics of Employment Exchanges

These statistics are compiled from the records of about 90 employment exchanges open to workers in all industries. The figures published are as follows : the number of demands for employment during each month, a distinction being drawn between those made directly by the worker himself and those communicated by the trade union unemployment funds ; the number of offers of employment and the number of employers making these offers ; the number of vacancies filled, a distinction being made between those resulting from the direct application of the worker and those based on demands communicated by the trade unions. These different data are published according to two distinct classifications : industrial (5 groups and 9 sub-groups), and geographical (by districts).

Sources : *Statistiske Efterretninger ; Meddelelser fra Socialraadets Sekretariat ; Statistik Aarbog.*

UNITED STATES OF AMERICA

Statistics Based on Trade Union Estimates

No statistics of this kind exist for the United States as a whole, but they exist in certain States.

In Massachusetts statistics of this kind were published until the beginning of 1924 for about 220,000 trade unionists in the principal industries. The figures give the number of trade unions covered by the enquiry and their total membership, the number and percentage of their members reported as without work on the last day of the month, distinguishing between unemployment due to lack of work, to unfavourable weather conditions, to strikes and lock-outs, sickness, accident, old age and other reasons. The figures were given by 18 districts and 7 industries.

Source : *Massachusetts Industrial Review.*

In other states analagous figures have been published irregularly, or have been discontinued since the war.

Statistics of Public Employment Exchanges

Statistics for the whole of the United States

Statistics are given showing the operation of the public employment exchanges which have been set up in the principal districts. During the war the service was nationalised by the Government but after the war the system was handed over to the different states and municipalities. Although the majority of these offices are open to workers of all kinds, certain of them are limited to certain industries. The figures published each month are the number of applications for work and for workers and the number of placings during the course of the month given for four chief geographical regions and for the whole United States. Index numbers are also published based on these figures taking the period July to September 1921 as 100.

Source : *United States Department of Commerce : Survey of Current Business.*

Statistics of the Different States

Detailed statistics are also published for about 170 towns in 40 states compiled by the local or State authorities. They vary considerably both in their scope and method, but in general they show the number of registrations and vacancies during the course of a stated period or outstanding on a fixed date, as well as the number of workers submitted for jobs and the number of workers accepted.

Index of the State of the Labour Market, compiled by the Federal Reserve Board

This index is based on the employment exchange statistics of six chief industrial States whose statistics are fairly comparable one with another (New York, Pensylvania, Ohio, Massachusetts, Illinois, Wisconsin). A series is first compiled for each of the States by taking the number of vacancies notified per hundred workers registered each month. These are expressed as index numbers taking the average of the period 1919-1922 as basis They are then expressed in terms of their standard deviation and seasonal fluctuations eliminated. These indices are then combined into a total index by taking the weighted average according to the number of industrial workers as shown by the census.

Source : *Federal Reserve Bulletin.*

STATISTICS OF EMPLOYMENT

Statistics of the U. S. Bureau of Labour Statistics

These statistics cover more than 2½ million workers in the principal manufacturing industries (metal, engineering, textile, wood, mining, food, paper, printing, chemicals, vehicles, etc.). They are based on returns from more than 8,500 establishments, chiefly large establishments employing about 40 per cent. of the labour working in the industry.

The figures given each month are :

(a) Number of establishments covered by the enquiry, number of workers on the payroll of identical establishments during a given week and the percentage change compared with the previous month ; similar figures are given concerning the total wages bill. These figures are grouped into 52 industries and 12 industrial groups and 9 geographical divisions.

(b) Figures similar to the peceding but giving annual comparison instead of monthly for identical establishments.

(c) The number of establishments which furnish returns of their activity (about 6,000) and the percentage showing : number idle, number working full time or working short time, as well as the percentage of those working to their full capacity, and those not working to full capacity, the percentage of full capacity represented by the average capacity during which the establishments have operated, and the percentage of full-time represented by average time during which establishments were operated. These figures are given by industry (52), by industrial groups (12, but no comparisons are made from month to month of identical establishments.

(d) An index of employment is also compiled for each industry by the chain system based on the percentage change from month to month. Indices for each group of industry and for all industries together are also calculated by taking the average of the industrial indexes weighted by the number of workers in the different industries according to the census of 1919. An index of the total pay rolls has also been calculated as from March 1925, and carried back to July 1922.

Source : *Monthly Labour Review.*

Other Employment Statistics

Various statistics on employment are also published by different authorities either for the whole of the United States or for certain states. In the first category are the statistics compiled by the United States Employment Service based on reports from 1,400 establishments, those published by the inter-state Commerce Commission, and those published by the Federal Reserve Bank of Philadelphia. In the second category statistics are published by California, Illinois, Iowa, Maryland, Massachusetts, New York, Oklahoma, and Wisconsin covering about 30 to 40 per cent. of the workers in the industries covered.

The figures generally given are the number of establishments, the number of workers employed at a given date, the percentage increase or decrease on the previous month for identical establishments. Separate figures are generally given for different industries and different regions, and index numbers are usually calculated on the basis of these percentages. Further, in certain states, notably Illinois, Massachusetts and Wisconsin, distinction is made of the number of establishments and the number of workers employed therein, working full time and working part time. In several cases also total wages bill is also given.

Index of Employment of the Federal Reserve Board

This index is compiled in such a way as to cover various employment statistics regularly published in the United States so as to obtain as comprehensive a measure as possible of employment while giving to each industry and to each district its proper importance. At the present time 33 manufacturing industries and all the principal industrial areas are covered. The data used for the compilation of this index are roughly the same as those mentioned above, and other data will be included as they become available. For each industry indexes are compiled based on percentage monthly changes and are finally combined by weighting each series according to the importance of the area represented. These composite indexes are finally adjusted if necessary for secular trend calculated upon the censuses of manufactures of 1919 and 1921. The indexes for industrial groups and for all industries are calculated by taking the mean of the different industrial indexes weighted according to their importance.

Source : *Federal Reserve Bulletin.*

FINLAND

Voluntary Insurance Statistics

These statistics cover about 20,000 trade unionists in metal, engineering, wood, textile, paper, printing industries; shopworkers and

domestics. They are based on returns from trade unions which possess a system of unemployment insurance supervised by the State. The figures are only published once a year and consist of :

(a) Number of members at the beginning and the end of the year, number of unemployed receiving daily benefit; number receiving travelling benefit, number of days of unemployment registered or receiving benefit distinguishing industry and sex.

(b) Number of unemployed having received daily benefit classified according to the duration of benefit (18 groups, from 5 days to 90 days) and grouped by industry.

(c) Income and expenditure of the Unemployment Funds by industry.

STATISTICS OF EMPLOYMENT EXCHANGES

These statistics are based on the operation of the employment exchanges set up in the principal centres and showing each month :

(a) Number of applications for work and for workers and the number of jobs found ;

(b) Number of applications for work and workers received from other localities than that in which the office is situated, also the number of jobs found for workers in other districts ;

(c) The number of registrations outstanding at the end of each week of the month.

Separate figures are given for men and women and for different districts. Each quarter similar figures are given as under *(a)* and *(b)* for the whole quarter, and, finally, an annual report gives similar information for the whole year as well as supplementary information concerning the number of registrations and vacancies notified and the number of placings for each month classified by industries and separately for Helsingfors, and for the rest of the country, percentage of workers placed and the percentage of vacancies filled, the average number of registrations for 100 vacancies notified during the year.

Source : *Social Tidskrift* (Social Review), published by the Finnish Ministry of Social Affairs.

FRANCE

STATISTICS OF STATE ASSISTANCE TO THE UNEMPLOYED

These statistics only cover a limited number of workers ; the municipal and departmental unemployment funds on which they are based having only a temporary and intermittent existence. Although the number officially constituted amounted to 264 (of which 233 communal funds in communes of more than 5,000 inhabitants and 31 departmental funds in localities of less than 5,000 inhabitants), the number actually in operation and sending regularly returns hardly reaches at the present time more than 25. The figures given each month are the number of funds reporting and the number of men and women receiving benefit.

STATISTICS OF EMPLOYMENT EXCHANGES

These statistics, resulting from the system of employment exchanges set up in each department and open to all workers, consist of :

number of applications and vacancies, men and women, outstanding on a given date; the number of placings during the month, distinguishing separately temporary placings (for less than one week) and collective placings of dock workers, from general placings; and for each department.

In the summary of the operation of the exchanges certain other figures are given and the number of placings effected in the chief industries, also separate figures on the placing of foreign workers for which special services exist.

Source : *Bulletin du Marché du Travail.*

GREAT BRITAIN and NORTHERN IRELAND

Statistics of Compulsory Insurance

These statistics apply to the greater part of the manual workers, as well as to non-manual workers whose salary does not exceed £ 250 per annum employed in industry and commerce in Great Britain and Northern Ireland. Among the chief exceptions are workers engaged in agriculture and forestry, domestic servants, teachers, persons employed in public services, and outworkers.

The number of workers unemployed is obtained by counting the number of unemployment books lodged at the employment exchanges by the workers with a view to obtaining unemployment benefit. The number of persons insured and their distribution in different industries is determined once a year at the time of the renewal of the books. The figures are, however, revised each quarter in order to take account of workers newly insured, withdrawals and other changes.

The figures published are as follows : the number and the percentage of unemployed workers registered on the last Friday of each month, together with the percentage of increase or decrease as compared with corresponding data for the previous month the figures being classified by sex and by industry (about 25 groups and 100 subgroups).

Statistics of Voluntary Insurance (Trade Unions)

These statistics cover about one million members of trade unions in different industries (coal mining, engineering and shipbuilding, textiles, printng, bookbinding and paper, woodworking, clothing, etc.). They are based on the number of trade union members recorded as unemployed by those organisations which regularly pay unemployment benefits to their members. Figures are published showing the number and the percentage of those unemployed, as well as the increase or decrease of the percentage in relation to the figure for the preceding month on the one hand, and for the corresponding month of the previous year on the other, for about 15 industrial groups, and for all groups.

Statistics of Employment Exchanges

These statistics are based on the records of the public employment exchanges organised systematically throughout the country and open to workers in any occupation. Although recourse to the services of

of those who have received benefits; the number partially unemployed and the number unemployed for irregular periods. These figures are compiled for the end of the month for men and women separately, and together, and are classified by industry (11 groups) and by provinces (18 groups).

For the figures of the number of unemployed registered and of those receiving benefits the two classifications, industrial and geographical, are combined in the detailed tables.

Source : *Bollettino del Lavoro e della Previdenza sociale.*

NORWAY

Statistics relating to Voluntary Insurance

The statistics recorded in Norway with respect to voluntary insurance cover about 32,000 workers belonging to several important industries : metallurgical, and engineering; building (masons and painters); woodworkers, sawmills, furniture; printing and publishing (printers and bookbinders); food (bakers); boot manufacturing. The statistics are based on the returns of 11 trade unions which administer systems of unemployment insurance with the assistance and under the supervision of the State.

The returns published relate to the percentage of unemployed workers registered amongst the members of these unions; they are given as total figures and separately for three industrial groups : metallurgical, and engineering; building; boot manufacture.

Other series covering a wider field have been published for several previous years, but their publication has been discontinued since 1923.

Employment Exchange Statistics

The statistics of employment exchanges are based on the operations of the public employment offices available to workers in all trades.

The returns published are as follows : the number of applicants for work registered, and the number of vacancies notified in the course of the month; the number of persons for whom work has not been found and the number of vacancies unfilled at the end of the month : the number of workers placed out and the number of vacancies filled in the course of the month. These statistics distinguish between men and women and are classified by industry (25) and industrial group (5). All the same returns, except that of the number of workers placed out in the course of the month, are also given classified by administrative district (49), and groups of districts (5).

Furthermore, for several years there has been published for the month of January a percentage figure for each locality and district showing the proportion of applicants for work registered in relation to the able-bodied male population between 20 and 60 years in the locality or district.

Source : *Statistiske Meddelelser, utgitt av det statistiske centralbyra* (Monthly Bulletin of the Central Statistical Office of the Kingdom of Norway).

NETHERLANDS

Statistics of Voluntary Unemployment Insurance

These statistics cover about 270,000 workpeople voluntarily affiliated to unemployment funds, and cover the principal industries (mines, metals, leather, printing, fishing, etc.) and also different branches of commerce, transport and agriculture. They are based on monthly returns made to the Ministry of Labour but are usually published several months in arrear. The returns show the number of members covered, the number and percentage of unemployed registered during the course of a week (an average of 4 or 5 weeks for the month), the total number and the number per unemployed worker of days of unemployment during the week. This last figure is also given as a percentage of the number of possible days of work which could have been performed by all the members if there had been no unemployment and is called an index number of employment. The number on benefit, the number of days of benefit and the total amount paid in benefit are also given. These figures are also combined with those obtained from a few trade unions who have no unemployment funds but are able to give information as to the members unemployed. The resulting percentages and index number are very slightly different from the preceding, for this supplementary enquiry covers only 7,000 workers. Only for the clothing industry does it yield any substantial additional information.

In addition to these relatively complete figures, which require a certain time for compilation, provisional, less detailed figures are available earlier. They cover the greater part of the workers (250,000) and roughly the same industries with the exception of mining, earthenware, fishing and certain branches of commerce. These figures published each month give for each week the number covered, the number unemployed during the whole six days and the number unemployed for less than six days of the week, together with percentages. These figures cover 13 industrial groups.

Employment Exchange Statistics

These figures are provided by the municipal employment exchanges which are co-ordinated under a central government department. Up to the end of 1923 the figures given were : the number of registrations and of vacancies outstanding, the number of such registered and satisfied during the month, the number outstanding at the end of the month. The number of registrations and vacancies outstanding at the beginning of the month are included with those registered during the course of the month. The proportion of vacancies or vacancies filled per 100 vacancies notified and the number of vacancies notified per 100 registrations are also given. Figures are given separately for the two sexes and under three classifications : occupations (28 male and 6 female), industries (26 groups) and districts (40).

As from 1924 these details are no longer compiled and all that is given are the figures obtained from the regional offices or their branches.

Source : *Maanschift van het centraal Bureau voor de Statistiek.*

POLAND

Compulsory Uemployment Insurance

A system of compulsory unemployment insurance was instituted by the Act of 18 July 1924. The only statistics available at present are the total number of workers on benefit the last day of each week.

Employment Exchange Statistics

Statistics are available based on the system of public employment exchanges covering the whole territory of new Poland open to workers of all kinds. Each month is published :

(a) number registrations and vacancies at the beginning of each month, the number registered during the course of the month, the number placed or cancelled during the month and the number of registrations and vacancies outstanding at the end of the month. These figures are given for 10 industrial groups and for domestic, unskilled workers and juveniles.

(b) the approximate number of unemployed estimated for the first of each month by the Ministry of Labour and based on employment exchange reports and classified by regions and by industrial groups as above.

Statistics of Employment

These statistics cover about 370,000 workers in the principal industries (mining, metallurgy, engineering, chemicals, textiles, paper, leather, wood, food, clothing, construction, printing, electricity and water services). Nearly 5,000 undertakings give information. The figures published monthly for each week are :

(a) Number of undertakings covered, numbers of employed and the number of worker-hours worked classified into 14 districts and 12 industries.

(b) An index number based on these figures with the first week of August 1924 as basis.

(c) The percentage of workers who work respectively, 0,1, -----7 days per week as well as the average number of days worked per worker.

(d) Number of establishments and workers covered in which work has been either, suspended completely ; inactive; or has been continued for 1,2 ---------7 days per week, distinguishing also those in which one shift, two, or three shifts have been worked per day. These figures are given for three important groups of industries and for the total.

(e) The number of mining establishments, and the number of workers covered, classified into coal, petrol, salt, etc., and by districts. These figures are only given once a month.

Sources : *Labour Statistics; Monthly Review of the Central Statistical Office ; Statistical Information of the Central Statistical Office.*

RUSSIA

Compulsory Unemployment Insurance

Insurance against unemployment applies in theory to the whole of the working population, but in fact, only a small number are

actually covered. The resulting statistics are therefore very incomplete for they only cover the number of unemployed who have received benefit and their percentage to the total employed registered.

Employment Exchange Statistics

These statistics are derived from the working of the official labour bureaux through whose medium the engagement of workers has been, since August 1924, made compulsory. In spite of this, however, the statistics cannot be considered complete. A large number of workers prefer not to take advantage of these facilities. The figures published at irregular intervals are based on reports from 70 chief towns and show for each month the number of unemployed registered and the vacancies notified at the end of the month, as well as the number per 100 vacancies, distinguishing sex, the number of vacancies per 100 unemployed and the number actually placed without distinction of sex. From time to time analyses by industry or district are published.

Statistics of Employment

These statistics cover all industrial workers, or about 1½ million, and are compiled by means of quarterly censuses carried out by the Government of all industrial establishments. The quarterly figures show the number of establishments covered, the average number of workers employed during the quarter, the total number of days worked and the total volume of production (according to selling price) during the quarter. Separate figures are given for State enterprises, cooperative enterprises and private enterprises, and are classified by groups of industry. Similar figures are given for the whole of the year but no comparison is made from quarter to quarter of the numbers employed in identical establishments.

Source : *Labour Statistics ;* Economic Review.

SWEDEN

Statistics of State Relief

The returns relating to the relief of unemployment by the State are based on the operations of a system of unemployment relief affecting all trades and established by the State in co-operation with the communes from 1921 to 1923.

The statistics published monthly are as follows :

The number of unemployed workers registered with the unemployment commissions : the number of those in receipt of relief : the number of those engaged on State or communal relief works, together with the percentage showing the proportion which the two last categories bear to the total number of unemployed workers registered. The number of relief works in operation is also indicated.

Statistics Based on Trade Union Estimates

Trade union statistics cover more than 180,000 trade union members in the principal industries (mines, metal work, engineering, building and construction, food, clothing, wood, textile, leather, printing and bookbinding), and in certain branches of commerce and transport. They are based on the reports of approximately 1,900 organisa-

tions, a large number of which, though not all, pay unemployment benefit to their members.

The statistics published monthly are as follows :

The number of organisations included in the enquiry, together with their membership, men and women separately ; the number of members recorded as unemployed on the last day of each month, men and women separately and together, and also the percentage which the latter figure represents compared with the total membership. The method of classification adopted corresponds to the national trade union groups.

Moreover, there have been published, until the end of 1923, figures showing the number of days of unemployment suffered. These figures were based, however, on the returns of a more limited number of trade unions covering only a membership of about 95,000. Up to the same date there were also published statistics showing the number of members unemployed on account of sickness, strikes or lockouts, military service and other causes, but excluding statistics of unemployment properly so called.

Employment Exchange Statistics

The statistics relating to the placing out of workers are based on the returns of the public, municipal and provincial employment exchanges which are available to workers in all trades.

The statistics published monthly are as follows :

(a) The number of applications for work, the number of vacancies offered and the number of places filled in the course of the month, the figures for men and women being given separately and together, classified by district.

(b) The number of persons registered as applying for work ; the number of applications for work and the number of vacancies offered, and the number of places filled in the course of the month ; the number of applications for work per 100 vacancies offered and the number of vacancies filled per 100 notified in the course of the month ; the method of industrial classification adopted comprises, for men and women together, 21 industries and 6 industrial groups. In the case of statistics given separately for men and women the classification is made according to the six industrial groups only.

Statistics of Employment

Swedish statistics of employment cover approximately 250,000 workers in the principal industries (mines, metal work, engineering, wood, stone and earthenware, paper, printing, food, clothing, building and construction), and also in commerce and transport undertakings. They are based on the returns of about 2,000 employers, indicating the number of workers engaged, and the general state of activity in the undertaking during the past quarter.

The statistics published are as follows :

The number of employers, and of workers engaged by them, classified according to the state of activity of the undertakings. Distinction is first made as to whether the condition of the undertakings was "very good", "good", "average", "fair", and "bad". An indication is then given of those undestakings in which the situation was "better",

"similar", or "worse" in comparison with the previous quarter, on the one hand, and in comparison with the corresponding quarter of the previous year, on the other. Finally, information is given showing the number of undertakings and of workers engaged, in respect of which labour was "scarce", "normal" and "excessive", during the past quarter. All these statistics are compiled for twelve large industrial divisions and about 40 sub-divisions.

Finally, percentages are given showing, for the workers included in the enquiry, the number of those engaged in undertakings in which the general state of activity is "above the average", "average", and "below the average". This triple series of figures is given for the whole of industry and also for 8 industrial groups.

Source : *Sociala Meddelanden, utgivna av K. Socialstyrelsen.*

SWITZERLAND

Statistics of State Assistance and of Employment Exchanges

Until 1924 these two series of statistics were closely connected, as the institutions for the assistance of the unemployed and for finding places for them were administered from 1919 in close relation one with the other. As long as assistance was provided, the labour exchange statistics were particularly complete, for, on the one hand registration at the labour exchanges was a preliminary condition for the receipt of benefits and, on the other hand, the employers were obliged by law to notify the exchanges as to any places which were vacant in their establishments.

From 1919 to June 1924 the following data were published :

(a) The number of places vacant, the number of unemployed workers registered and the number who received benefits, classified in great detail according to occupation and also according to industry (18).

(b) The number of places vacant; the number of unemployed workers registered, and of these the number employed on relief works; the number of those actually without employment (registered as unemployed not including those occupied on relief works), and amongst these the number receiving benefits; the number partially employed; the total number registered as unemployed and those partially unemployed. These figures are compiled separately for the two sexes, and also administratively by cantons.

(c) The same figures, except those of the numbers of workers engaged on relief works, and the numbers of those actually without employment, are also classified according to industry (18 groups).

Statistics of Employment Exchanges

These statistics, the compilation of which in their present form was commenced in July 1924, are based on the reports of the cantonal and communal labour exchanges affiliated to the *Association des Offices suisses du Travail.*

The figures, which are published each month are as follows :

(a) The number of offers of and demands for employment on the last day of the month, classified by occupation and industry

according to a plan almost identical with that adopted during the previous period.

(b) These figures are summarised, data being given separately for men and women, as well as for these groups together, for 20 different industrial groups, and in each of these further distinction is made between skilled and semi-skilled workers on the one hand, and unskilled workers on the other. Data are given also as to the number of demands for employment per hundred offers of employment.

(c) The number of demands for and offers of employment on the last day of the month are also compiled by cantons and by industrial groups, without distinction according to sex and degree of skill.

(d) Similar figures to those mentioned under *(b)* and *(c)* are published with a month's delay, as to the offers of and demands for employment registered and vacancies filled during the month, and not for the last day of the month. In addition, the number of demands per hundred offers of employment registered during the month are calculated, as well as the number of demands and the number of offers of employment per hundred vacancies actually filled during the month.

Certain figures as to the number of offers of and demands for employment are also published on the basis of information obtained from the employment services for special groups of workers (printing, technical staff, staffs of hotels and commercial establishments). In another publication *(Rapports économiques de la feuille officielle suisse du commerce)*, figures as to the number of demands for employment at the end of the month in relation to the working population, as determined by the census of 1920, in order to give a percentage of workers unemployed, are given separately for manual and non-manual workers.

Statistics of Employment

These statistics published since 1924, cover over 180,000 workers in all important manufacturing industries, as well as in the building industry. They are based on the reports of over 1,300 employers, generally those with large establishments. These reports are sent to the Federal Labour Office, either directly or through the employers' associations.

The figures published each month show the number of establishments and the number of workers classified according to the following different points of view :

(a) The activity of the undertakings during the quarter, distinction being made between those where the activity was good, satisfactory or bad.

(b) Probable activity during the period immediately ahead, a distinction being made between good, satisfactory, bad, and uncertain.

(c) Hours of labour per week, distinction being made between "48 hours", "more than 48 hours", and "less than 48 hours".

(d) The possibilities as to the recruitment of labour, distinction being made between "shortage" and "abundance" of labour, skilled, unskilled and "not specified".

These different data are compiled separately for men and women for 17 different industries, and for these industries together. They are also given in the form of percentages in relation to the total of the establishments covered by the enquiry, and also to the total number of workers employed in these establishments, no distinction being made however between the different industries. Recently a "coefficient of activity" has been compiled by multiplying by 3/2 the percentage of workers employed in establishments in which trade is good, by 2/2 (that is by taking as it stands) the percentage of those in which trade is satisfactory, and by 1/2 the percentage of those in which trade is bad. By adding these three products, a coefficient is obtained which may vary from 50 to 150, according as trade is bad or good respectively in all establishments, and which will stand at the figure 100 if, on the average, trade is satisfactory. This coefficient is published separately for the different industries.

Sources : to January 1925, *Le marché suisse du travail ;* from February 1925. *Informations de Statistiques sociales ; Rapports économiques de la feuille officielle suisse du commerce.*

CZECHOSLOVAKIA

Statistics of Assistance

These statistics cover practically all wage earners with the exception of those employed in certain industries of a seasonal character. They are obtained from the records of the system of assistance for the unemployed organised provisionally until the coming into operation on 1 April 1925 of a system of volontary insurance. The figures, published each quarter for the last day of each month, are as follows :

(a) The numbers unemployed assisted by the State, whether indirectly (through the establishments) or directly, distinction being drawn in the latter case between those who are registered at public employment exchanges and those not registered; the total number of workers unemployed (registered at the exchanges) receiving benefits through the establishments and those receiving benefits directly from the State, but not registered at the exchanges. These figures are compiled for men and women separately and together and classified by industries (25) and by provinces (5). In the same tables are published the number of places vacant at the end of uthe month ;

(b) An index number of unemployment compiled from the total numbers unemployed (base : January 1921 = 100) ;

(c) The percentage which the total number of workers unemployed represents of the total number of workers as determined by the census of 1921 (agricultural workers excepted) as well as a similar percentage based, however, only on industrial workers.

Source : *Zpravy Statniho uradu statistického republicky Ceskoslovenske* (Rapport de l'Office statistique de la République tchécoslovaque).

Similar figures are also published in an annual report but they are compiled for the first and the 15th of each month and the geographical classification is much more detailed; figures are also given as

... on the unemployed workers in receipt of ... as well as with regard to the sums paid.

Source : *Socialni Revue* (Revue Sociale, organe de l'Institut social de la République tchécoslovaque).

Employment Exchange Statistics

These statistics are compiled from the records of various employment exchanges, open to workers in any occupation. The figures, which are published once a quarter for the different months, are as follows : the number of employment exchanges from which information has been obtained ; the number of demands for and offers of employment during the month, including offers and demands made during the preceding month but not satisfied; the number of places filled during the month; the number of places vacant and places filled per 100 demands for employment, and the number of places filled per 100 places vacant. These figures are published separately for men and women as well as for these groups together and are tabulated according to three distinct classifications : by industries (25), by king of exchange (public exchanges, exchanges established by workers' organisations, exchanges established by commercial undertakings, miscellaneous exchanges), and by provinces (5).

The figures with regard to the number of demands for and offers of employment registered on a given day of the month are published with the assistance statistics.

Source : *Zpravy Statniho uradu statistického republicky Ceskoslovenske* (Rapport de l'Office statistique de la République tchécoslovaque).

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